

Serial No.: 09/981,337
Docket No.: VAS-5041DIV2
Amendment dated September 8, 2003
Responsive to Office Action of May 7, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

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Listing of claims:

Please cancel claims 1-80.

81. (New) An internally stented graft convertible between a compact configuration
10 having a first diameter and an expanded configuration having a second, larger diameter,
comprising:

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15 at least one stent formed in a generally cylindrical shape having an outer surface
and a hollow bore extending longitudinally therethrough, the stent being convertible
between a compact configuration having a first diameter and an expanded configuration
having a second, larger diameter; and

a flexible, porous, biocompatible tubular PTFE graft co-axially disposed in
contact with and adhered to the outer surface of the stent, the tubular PTFE graft being
formed of a plurality of concentric layers of helically-wound PTFE tape.

20 82. (New) The internally stented graft of claim 81, further including a polymer
coating on the stent to facilitate adherence of the stent to the tubular PTFE graft.

83. (New) The internally stented graft of claim 82, wherein the polymer coating is
PTFE.

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84. (New) The internally stented graft of claim 82, wherein the polymer coating is
selected from the group consisting of:

polytetrafluoroethylene(PTFE),

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fluorinated ethylene propylene (FEP),
polytetrafluoroethylene-perfluoroalkyl vinyl ether copolymer (PFA),
polyvinyl chloride (PVC),
polypropylene (PP),
5 polyethylene terephthalate (PET), and
polyvinylidene fluoride (PVDF).

85. (New) The internally stented graft of claim 81, further including melted polymer
particles deposited between the stent and the tubular PTFE graft to facilitate adherence of the stent
10 to the tubular PTFE graft.

 86. (New) The internally stented graft of claim 85, wherein the polymer particles are
PTFE.

15 87. (New) The internally stented graft of claim 81, wherein the PTFE tape is expanded
and completely sintered.

88. (New) The internally stented graft of claim 81, wherein the PTFE tape has a width
of less than about one inch.

20 89. (New) The internally stented graft of claim 88, wherein there are between about 6-8
revolutions per longitudinal inch of PTFE tape around the stent.

90. (New) The internally stented graft of claim 81, wherein the PTFE tape is helically
25 wound in two directions.

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91. (New) An internally stented graft convertible between a compact configuration having a first diameter and an expanded configuration having a second, larger diameter, comprising:

at least one stent formed in a generally cylindrical shape having an outer surface and a hollow bore extending longitudinally therethrough, the stent being convertible between a compact configuration having a first diameter and an expanded configuration having a second, larger diameter; and

a flexible, porous, biocompatible tubular PTFE graft co-axially disposed in contact with and adhered to the outer surface of the stent, the tubular PTFE graft having been expanded and completely sintered prior to assembly with the stent.

B2 92. (New) The internally stented graft of claim 91, further including a polymer coating on the stent to facilitate adherence of the stent to the tubular PTFE graft.

93. (New) The internally stented graft of claim 92, wherein the polymer coating is PTFE.

94. (New) The internally stented graft of claim 92, wherein the polymer coating is selected from the group consisting of:

polytetrafluoroethylene (PTFE),
fluorinated ethylene propylene (FEP),
polytetrafluoroethylene-perfluoroalkyl vinyl ether copolymer (PFA),
polyvinyl chloride (PVC),
polypropylene (PP),
polyethylene terephthalate (PET), and
polyvinylidene fluoride (PVDF).

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95. (New) The internally stented graft of claim 91, further including melted polymer particles deposited between the stent and the tubular PTFE graft to facilitate adherence of the stent to the tubular PTFE graft.

5 96. (New) The internally stented graft of claim 95, wherein the polymer particles are PTFE.

10 97. (New) The internally stented graft of claim 91, wherein the the tubular PTFE graft is formed of a plurality of concentric layers of helically-wound PTFE tape having a width of less than about one inch.

B2 98. (New) The internally stented graft of claim 97, wherein there are between about 6-8 revolutions per longitudinal inch of PTFE tape around the stent.

15 99. (New) The internally stented graft of claim 97, wherein the PTFE tape is helically wound in two directions.

20 100. (New) An internally stented graft convertible between a compact configuration having a first diameter and an expanded configuration having a second, larger diameter, comprising:

at least one stent formed in a generally cylindrical shape having an outer surface and a hollow bore extending longitudinally therethrough, the stent being convertible between a compact configuration having a first diameter and an expanded configuration having a second, larger diameter;

25 a flexible, porous, biocompatible tubular PTFE graft co-axially disposed in contact with and adhered to the outer surface of the stent; and

a polymer coating on the stent to facilitate adherence of the stent to the tubular PTFE graft.

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101. (New) The internally stented graft of claim 100, wherein the polymer coating is PTFE.

5 102. (New) The internally stented graft of claim 100, wherein the polymer coating is selected from the group consisting of:

polytetrafluoroethylene(PTFE),
fluorinated ethylene propylene (FEP),
polytetrafluoroethylene-perfluoroalkyl vinyl ether copolymer (PFA),
10 polyvinyl chloride (PVC),
polypropylene (PP),
polyethylene terephthalate (PET), and
polyvinylidene fluoride (PVDF).

15 103. (New) The internally stented graft of claim 100, wherein the the tubular PTFE graft is formed of a plurality of concentric layers of helically-wound PTFE tape having a width of less than about one inch.

20 104. (New) The internally stented graft of claim 103, wherein there are between about 6-8 revolutions per longitudinal inch of PTFE tape around the stent.

105. (New) The internally stented graft of claim 103, wherein the PTFE tape is helically wound in two directions.